



U.S. ARMY



PEO AVN

Tri Service Interoperability Conference



MOSA TO

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15 Mar 2022



What is MOSA? Why MOSA Now?

MOSA is a technical and business strategy in which modularity and openness principles are applied in order to achieve a particular set of objectives.

Unique Inflection Point

- Mandate for Rapid Capabilities to Pace Threat Evolution
- Must Accelerate Program Execution at the Speed of Technology
- Affordability Paramount in Current Fiscal Environment
- Opportunity to Leverage Across Future and Enduring Fleet is

NOW!



PEO AVN MOSA OBJECTIVES:

- Improved Affordability
- Increased Readiness
- Enhanced Capabilities
- Reduced Schedule Pressure
- Reduced Supply Chain Risk

Engagement Throughout the Aviation Life Cycle to Optimize Value of MOSA



PEO Aviation MOSA

- PEO Aviation has stood up their **MOSA Transformation Office (TO)**
 - Body to represent the Enterprise Perspective
- Published Internal PEO Aviation MOSA Policy
 - Implementation Guide
 - MOSA Objectives (improved affordability, increased readiness, enhanced capability, reduced schedule pressure, and reduced supply chain risk)
 - Enterprise Architecture and Framework
 - Identified Initial Major System Components
- MOSA TO identified **PEO AVN Enterprise priority MSCs** which are common to multiple enduring and future platforms



Initial MSC priorities are based on existing common components and/or functions

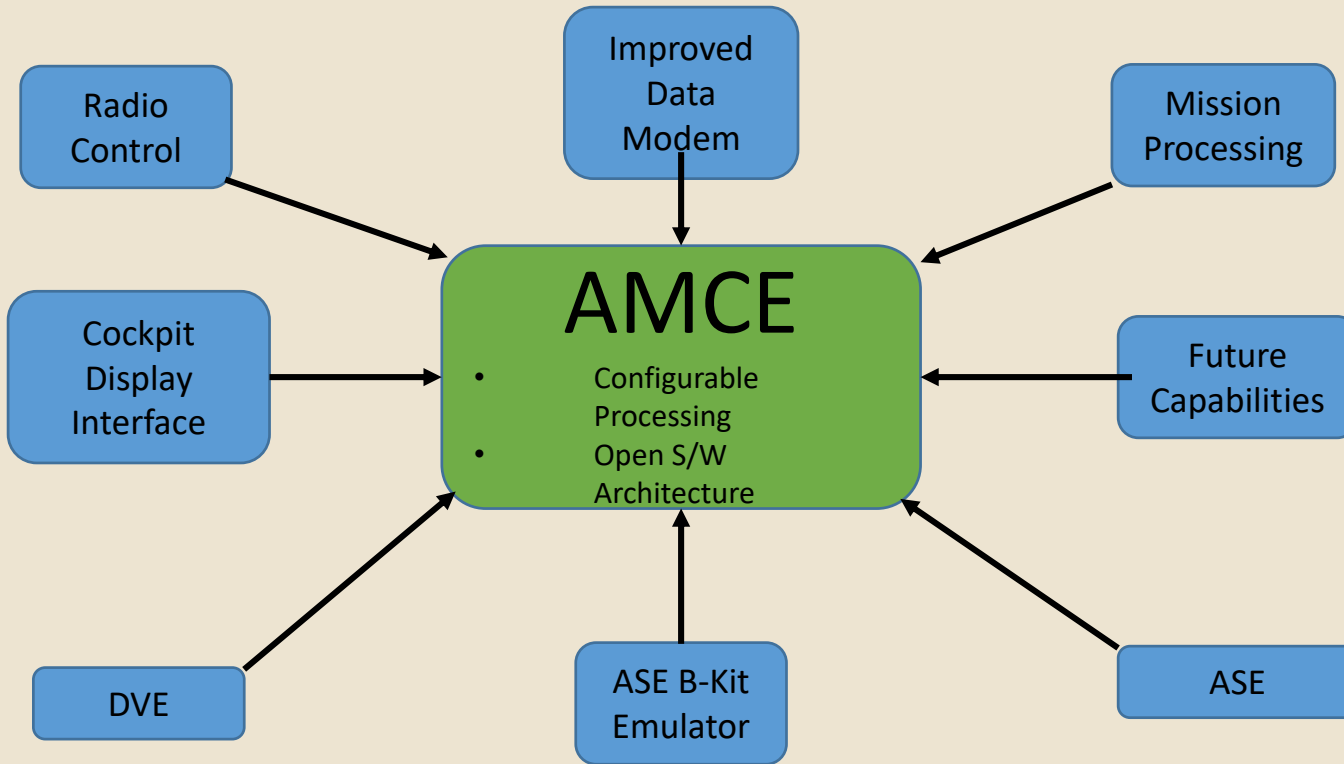
Initial MSC Priorities for PEO AVN

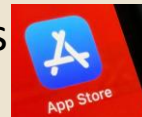
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|--|--|
| <ul style="list-style-type: none"> • Aviation Mission Computing Environment <ul style="list-style-type: none"> • Configurable Processing • Open Transports • Graphical Interfaces • BSP Decoupling • SW Field Loading • Symbolology / COP • Comms / Datalinks / Control <ul style="list-style-type: none"> • Communication Radios • Data Radios • Link 16 • Airborne Radio Control Manager (ARCM) • Navigation <ul style="list-style-type: none"> • TACAN • COR/ILS • EGI • ILS • ADS-B • RNP/RNAV | <ul style="list-style-type: none"> • Aircraft Survivability Equipment (ASE) • Dynamic Airspace and Mission Planning Environment (DAMPE) • Common Pilot Vehicle Interface (PVI) • Degraded Visual Environment (DVE) • Electrical Power Systems <ul style="list-style-type: none"> • ECB • Power Management • Generators • Conversion Electronics • Batteries • Supplemental Power Units • Unmanned Vehicle Control |
|--|--|



Future MSCs will be prioritized based on PEO investment strategy

Aviation Mission Computing Environment



- AMCE introduces Modular/Configurable Processing to Aviation
 - Provides Scalable, Configurable, and Modular Processing Resources
- AMCE introduces Open Software Architecture
 - Breaks vendor lock; 1 Capability \neq 1 LRU
 - Enables  approach



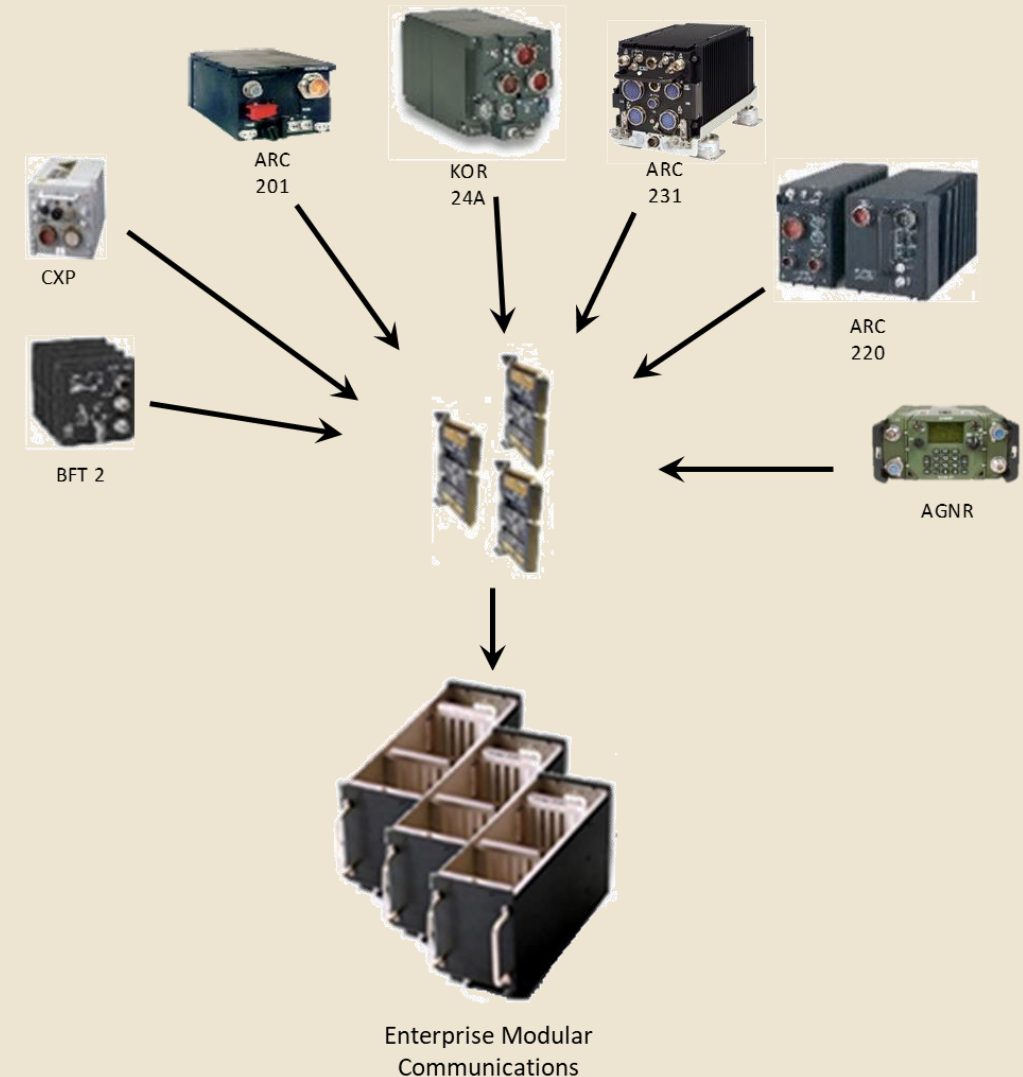
Fundamentally Different Approach to Capability Introduction



Comms/Datalinks/Control

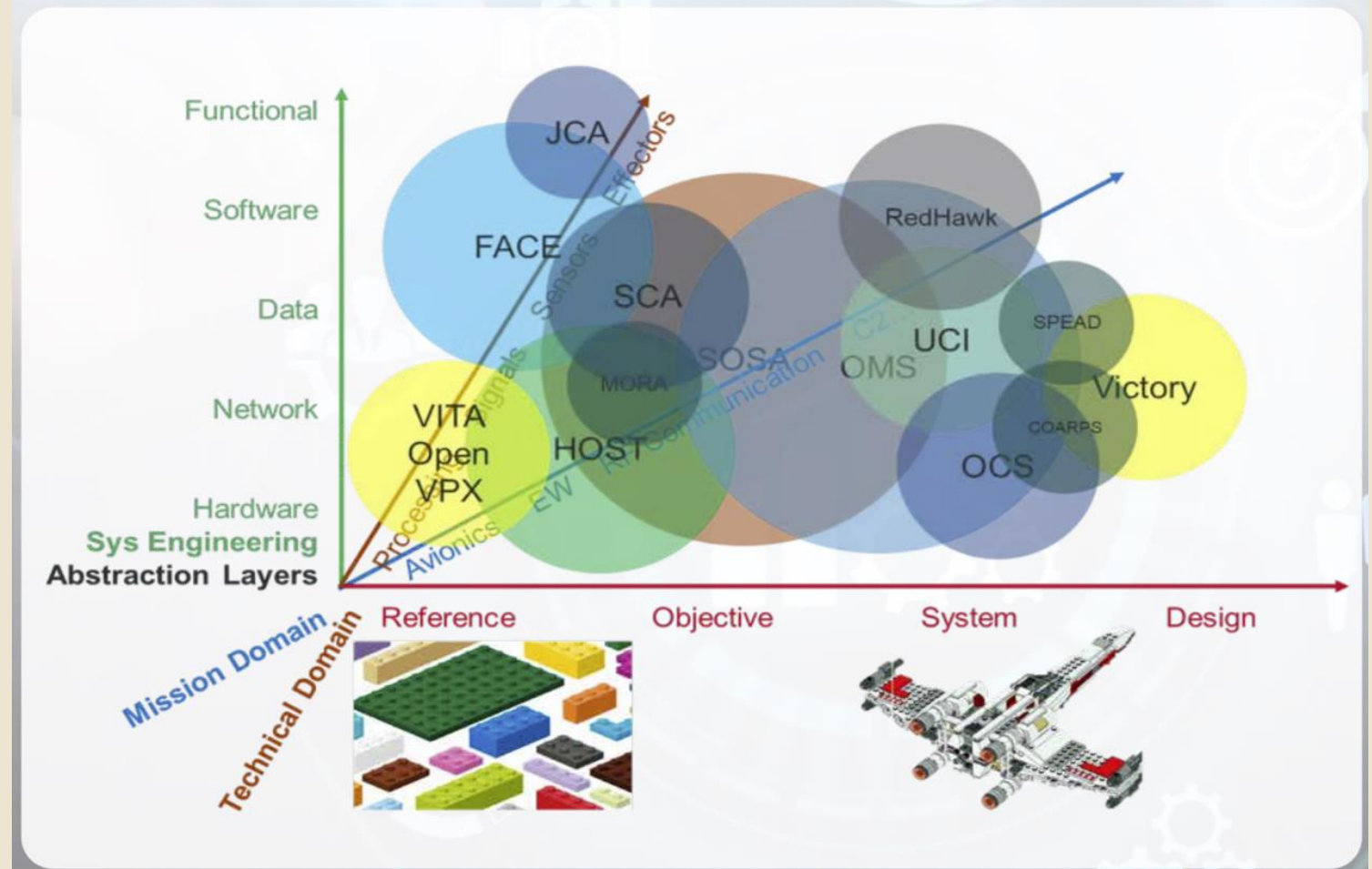
CMFF Modular Communications

- **Convergence** of multiple LRU based communications and data link devices into radio cards in an open standards based Modular Environment
 - 1 Capability \neq 1 LRU
- Aligns with Army's CMFF A-CDD Modular Communications effort
- **Scalable** Form Factors – Ease of Integration
- Universal Control through Aviation Radio Control Manager (**ARCM**)
 - Avoids opening Platform OFP for new radio technology



So Many Standards...

- **Single Standard Approach has Potential Issues**
 - Mixed Criticality SW/HW
 - Various Approaches to Data Models
 - Different Abstraction Layers / Mission Needs
 - Different Functional Decomp Approaches / Definitions
 - Divergent Hardware Needs
- **FACE Consortium (and other) Standards Interoperability Initiatives**
- **Need for Portfolio and Programmatic Level Design Guidance**



While these various Standards overlap, they are complementary and can be coordinated with appropriate Enterprise guidance.